

Brownfields for Beginners



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Dover, DE
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What is a Brownfield?

“Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” USEPA

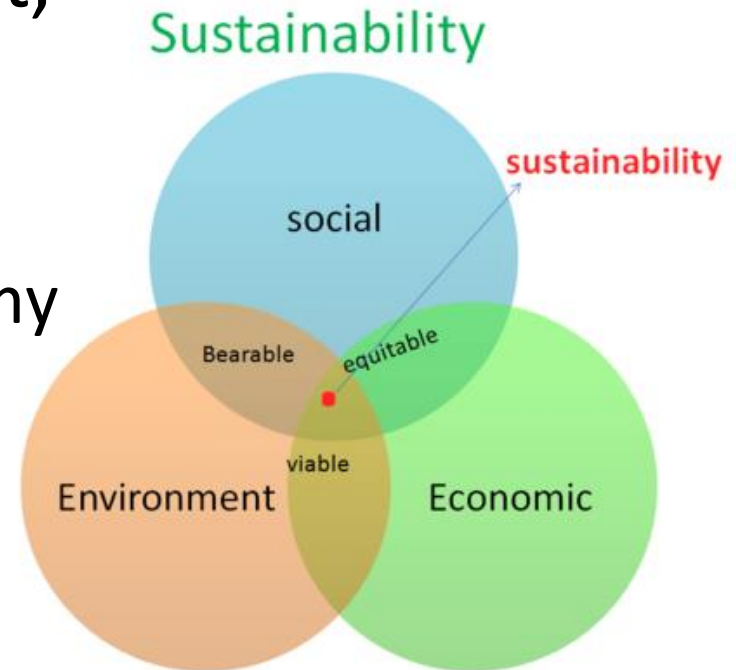


Why Should I Care About Brownfields?

Brownfields are hidden assets.

You should be interested in
Brownfield Redevelopment,
if you are interested in:

- Improving the Environment
- Improving the Local Economy
- Sustainability



Disadvantages of Having a Brownfield Site

- Potential harm to human health
- Degradation of the environment – soils, water, air
- Lowers surrounding property values
- Contributes to neighborhood deterioration
- Contributes to negative perception of the neighborhood



https://en.wikipedia.org/wiki/Brownfield_land



http://fieldsenvironmentalinc.com/brownfield_redevelopment

- Reduces local employment opportunities
- Reduces or loss of tax revenue
- Limits economic growth



<http://www.bnd.com/news/local/community/highland-news-leader/article33406179.html>

- Attracts vandals, open dumping, or other illegal or unwanted activity
- Contributes to sprawl – as activities locate on greenfields

Benefits of Brownfield Redevelopment



http://blog.cleveland.com/metro/2008/11/pittsburghs_renaissance_holds.html

- Fostering New Growth on Old Land
- **Opportunity** to become a Community Asset
- Environmental, Societal, and Economic Benefits

Benefits of Brownfield Redevelopment

- Brownfields are **opportunities**
- Tap into funding not available to other sites
- Brownfield redevelopment can be the catalyst that will stimulate other redevelopment efforts
 - Reducing Blight / Stigma can attract developers
 - Surrounding property owners tend to reinvest
- Employment opportunities
- Mitigate Flooding
- Green Space/ Recreation /Community Asset



Steps in the Brownfield Redevelopment Process

Yes – I
have
brownfield
site....
Now
What?



<http://wisconsinwatch.org>

The Brownfields Road Map illustrates the general steps involved in the investigation and cleanup of a brownfields site.

Actual steps may vary depending on site conditions and applicable state and federal regulations. Stakeholders should consult with appropriate regulatory agencies throughout the process and enlist qualified technical and legal services.

View an Interactive, online map at www.brownfieldstsc.org/roadmap that contains links to information about the general phases and spotlight topics.

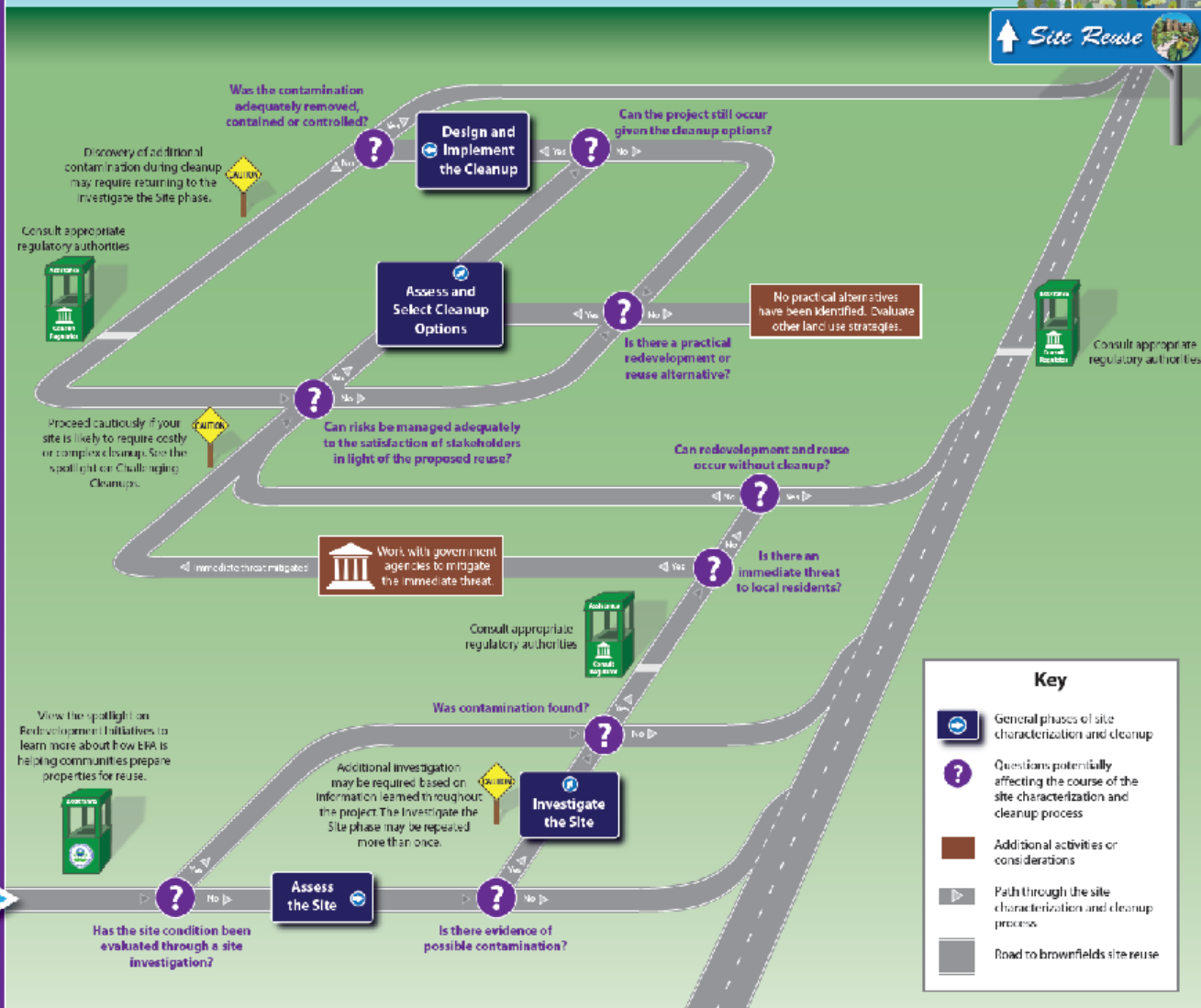
Learn the Basics

Before you begin down the path outlined in the road map, it is important to get prepared. Preparation typically consists of the following activities:

- Setting reuse goals and planning
- Understanding regulations, regulatory guidelines and liability concerns
- Engaging the community
- Identifying funding
- Seeking professional support

Begin Here

Brownfields Road Map



Spotlights

The Road Map "spotlights" highlight key issues, processes and initiatives. Each spotlight provides a summary of topics relevant to brownfields projects and identifies related resources. The following spotlights are included in the Road Map:

Learn the Basics

1. Redevelopment Initiatives (p. 15)
2. Supporting Tribal Revitalization (p. 16)

Assess the Site

3. All Appropriate Inquiries (p. 18)
4. Project Life Cycle Conceptual Site Model (p. 22)

Investigate the Site

5. Data Quality (p. 25)
6. High-Resolution Site Characterization and In Situ Technologies (p. 29)
7. Vapor Intrusion (p. 30)

Assess and Select Cleanup Options

8. Challenging Cleanups (p. 35)
9. Understanding the Role of Institutional Controls (p. 36)

Design and Implement the Cleanup

10. Greener Cleanups (p. 40)

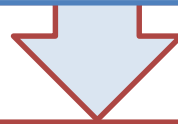
The Brownfields and Land Revitalization Technology Support Center

Provided by the U.S. EPA, Argonne National Laboratory, and the U.S. Army Corps of Engineers

Steps in the Brownfield Redevelopment Process

Phase I – Assessment (AAI)

What environmental issues could we have?



Phase II - Site Investigation

Qualify: Do we have contamination/environmental issues?

Yes or No?



Phase III - Remedial Investigation

Quantify: What is the nature and extent of our contamination?

How much?

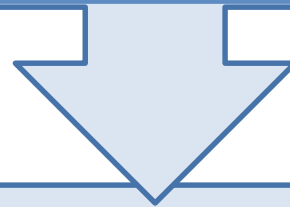


What is Typically Involved with Redeveloping a Brownfield?

Clean Up (Remediation)

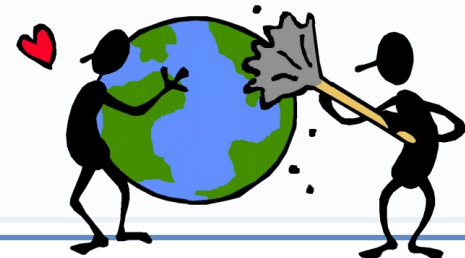
Remedial Action Work Plan (RAWP)

Actions that will be taken to address identified contamination



Implement Remedial Action Work Plan

- Conduct Clean Up
- Ensure Clean Up Was Effective

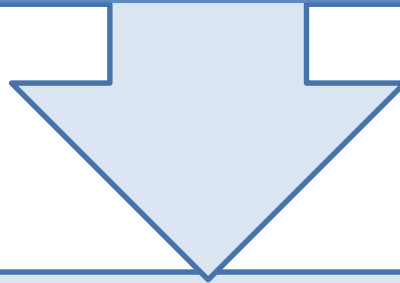


What is Typically Involved with Redeveloping a Brownfield?

Clean up (Remediation)

Remedial Action Report

Documents implementation and effectiveness of Remedial Actions



Measure of Finality



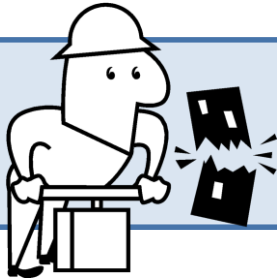
What is Typically Involved with Redeveloping a Brownfield?

Site Preparation

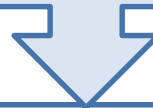
Permits / Approvals



Demolition



Site Clearing



Infrastructure Improvements



What is Typically Involved with Redeveloping a Brownfield?

Redevelopment

Construction

Integrated Remediation (cap)



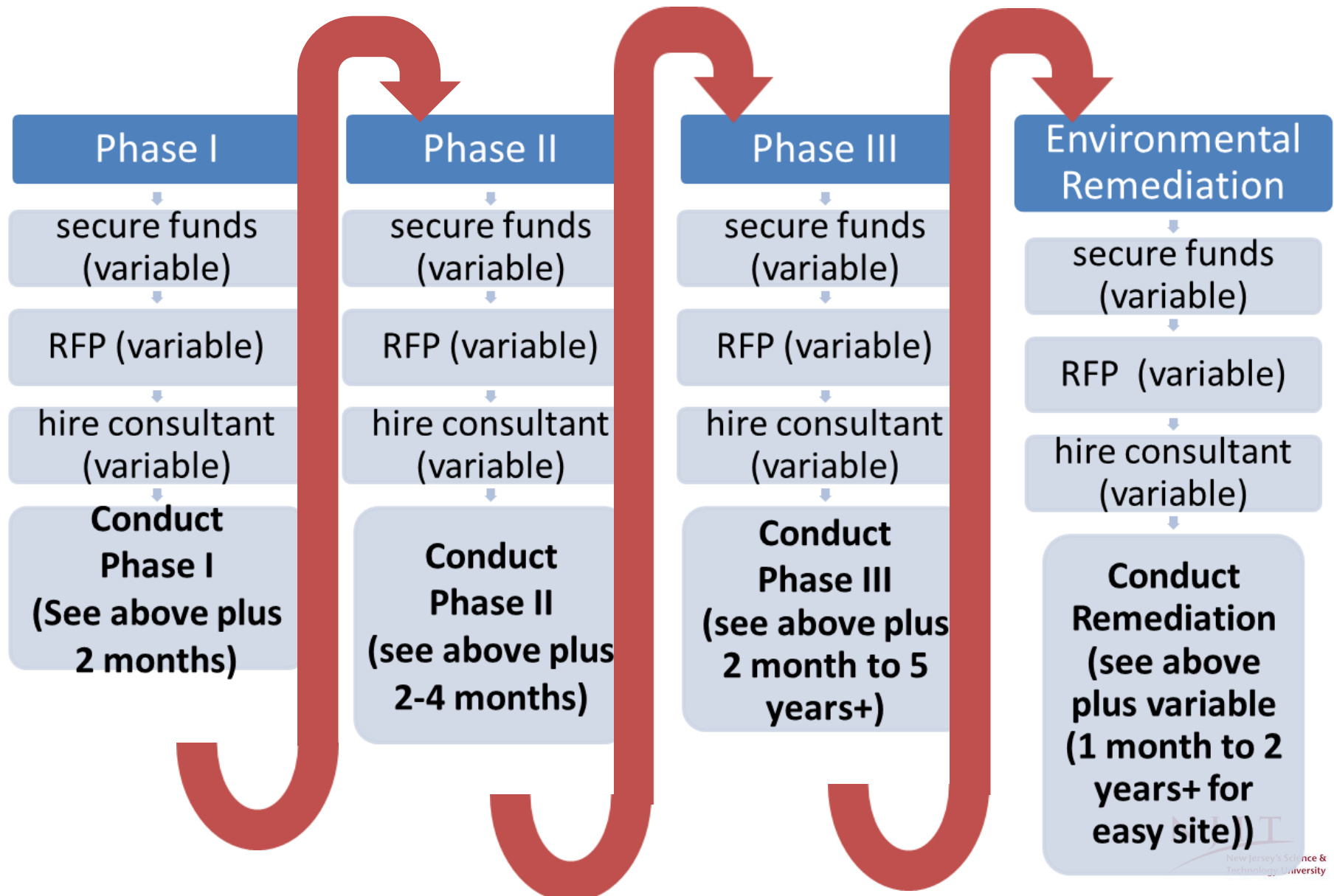
Ownership and leasing transactions are finalized



Property is occupied and operating as its planned reuse.

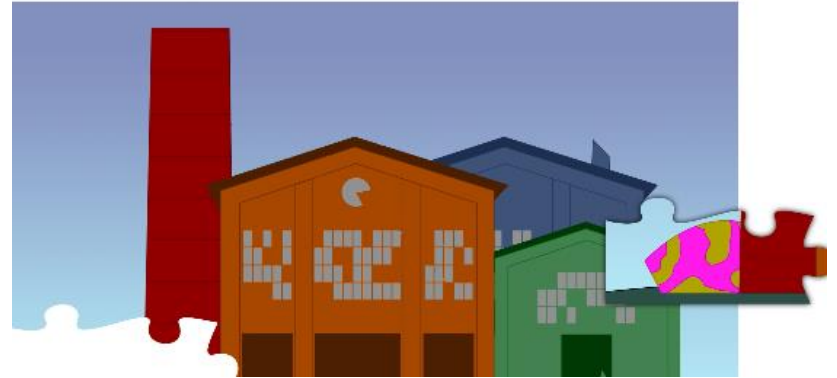


Steps in the Brownfield Redevelopment Process



Key Considerations

- Owner On-Board
- Reuse Plans
- Partnerships
- Funding
- Environmental Assessment- Clean portions of site
- Engineering Controls - Integrate / Coordinate with Construction



Tips for Success

- Hold monthly team meetings/calls
- Break down project components & phases
- Determine costs and funding sources
- Create Resource Roadmap for project priorities
- Develop briefing sheets
- Advocate for funding
- Celebrate Success

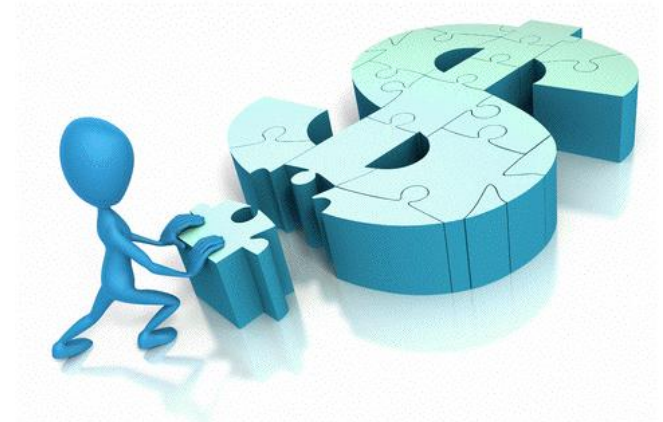


What if I find contamination?



Financing Brownfield Redevelopment

- Technical Assistance
- Tax Incentives
- Local Financing Tools
- Low Interest Loans
- Loan Guarantees
- Federal Grants



Federal Funding Programs

Grants

- US EPA brownfield grants
- Other USEPA Programs (eg. Recreation Economy for Rural Communities; Local Food Local Places (tech assist))
- HUD's Community Development Block Grants (for projects locally determined)
- EDA public works and economic adjustments
- DOT (various system construction, preservation, rehabilitation programs)- BUILD
- Army Corps of Engineers (cost-shared services)
- USDA community facility, business and industry grants
- National Endowment for the Arts
- Northern Border Regional Commission

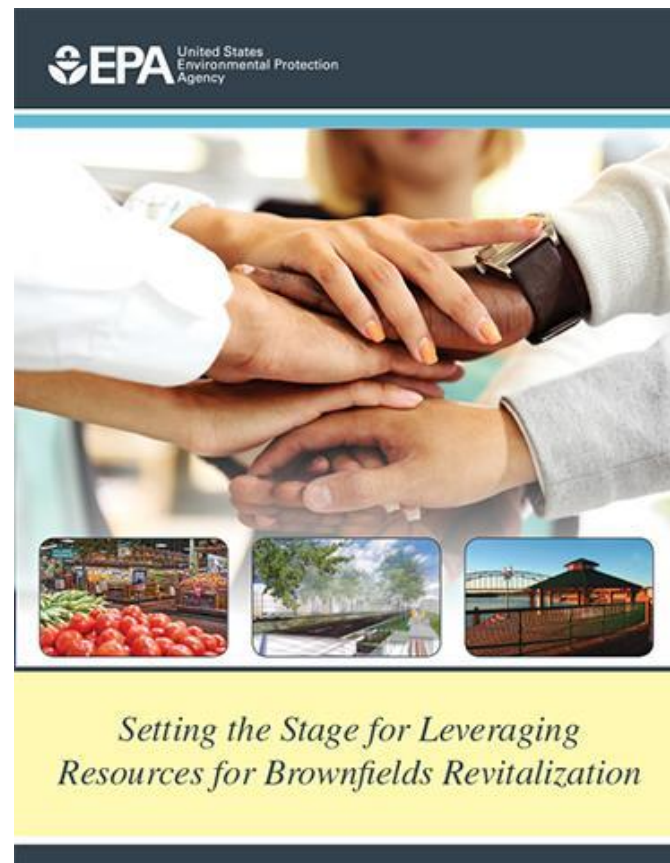


Helpful Guide: Leveraging

Successful grantees are assembling a package of funding from a variety of sources.

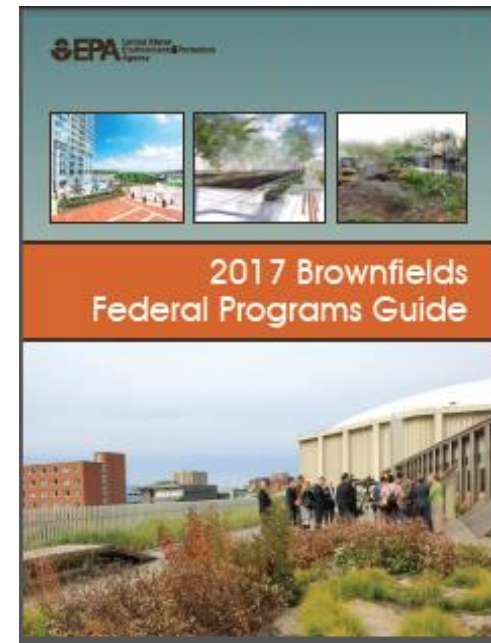
EPA Brownfields grants provide only a fraction of the funding necessary to clean up, prepare sites for development, and revitalize brownfields.

This guide, available online provides best practices for leveraging resources for brownfields and community revitalization.



Helpful Guide: The Brownfields Federal Programs

- This guide is intended to help local governments, nonprofit organizations, and other entities involved in brownfields redevelopment navigate the web of financial and technical assistance available from the federal government.
- It is a compendium of the technical assistance and financial resources available from federal agencies for brownfields and land revitalization projects.

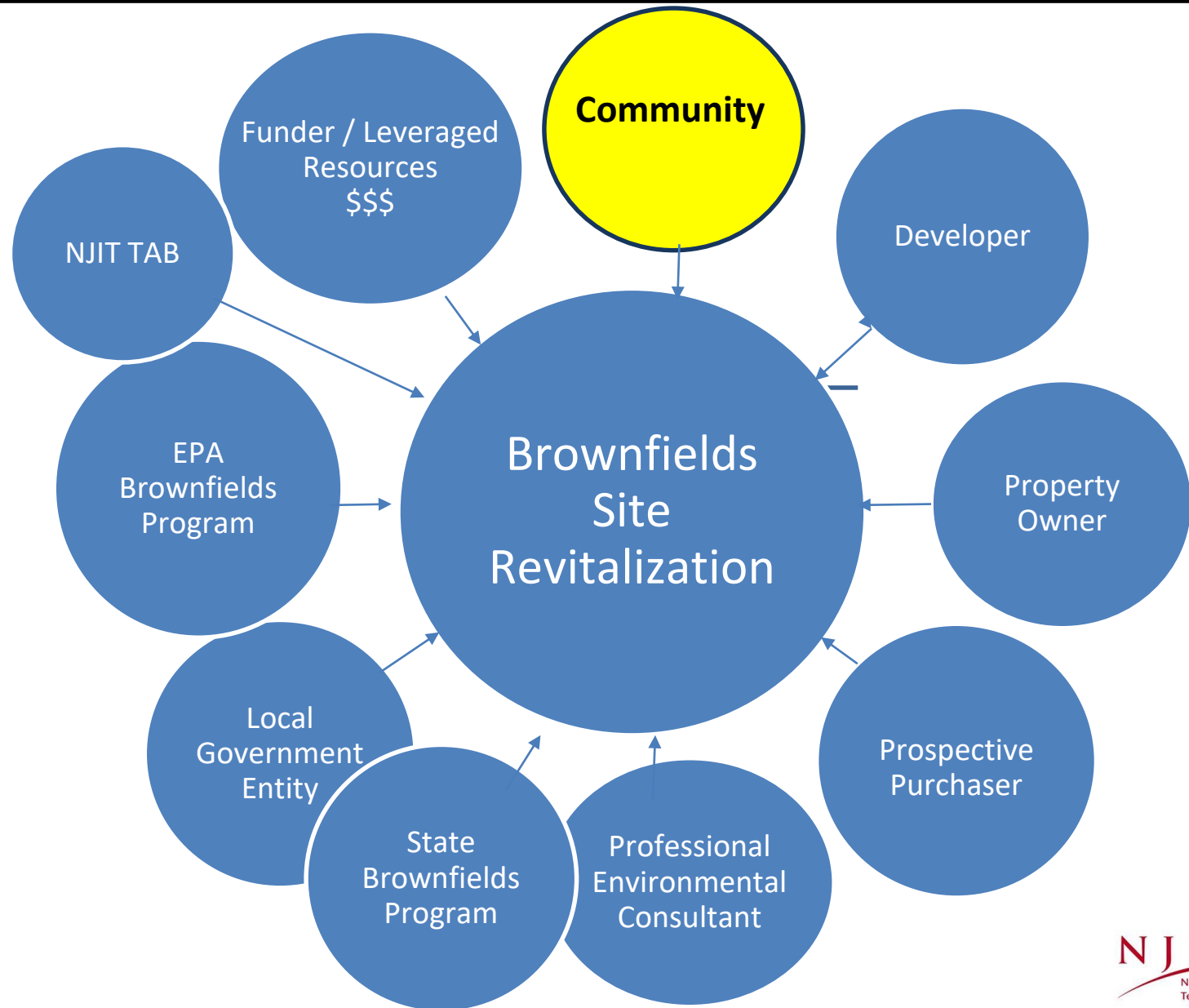


Key Considerations

- Owner On-Board
- Partnerships
- Funding
- Environmental Assessment- Clean portions of site
- Engineering Controls - Integrate / Coordinate with Construction



Who is Typically Involved in Redeveloping a Brownfield Site?

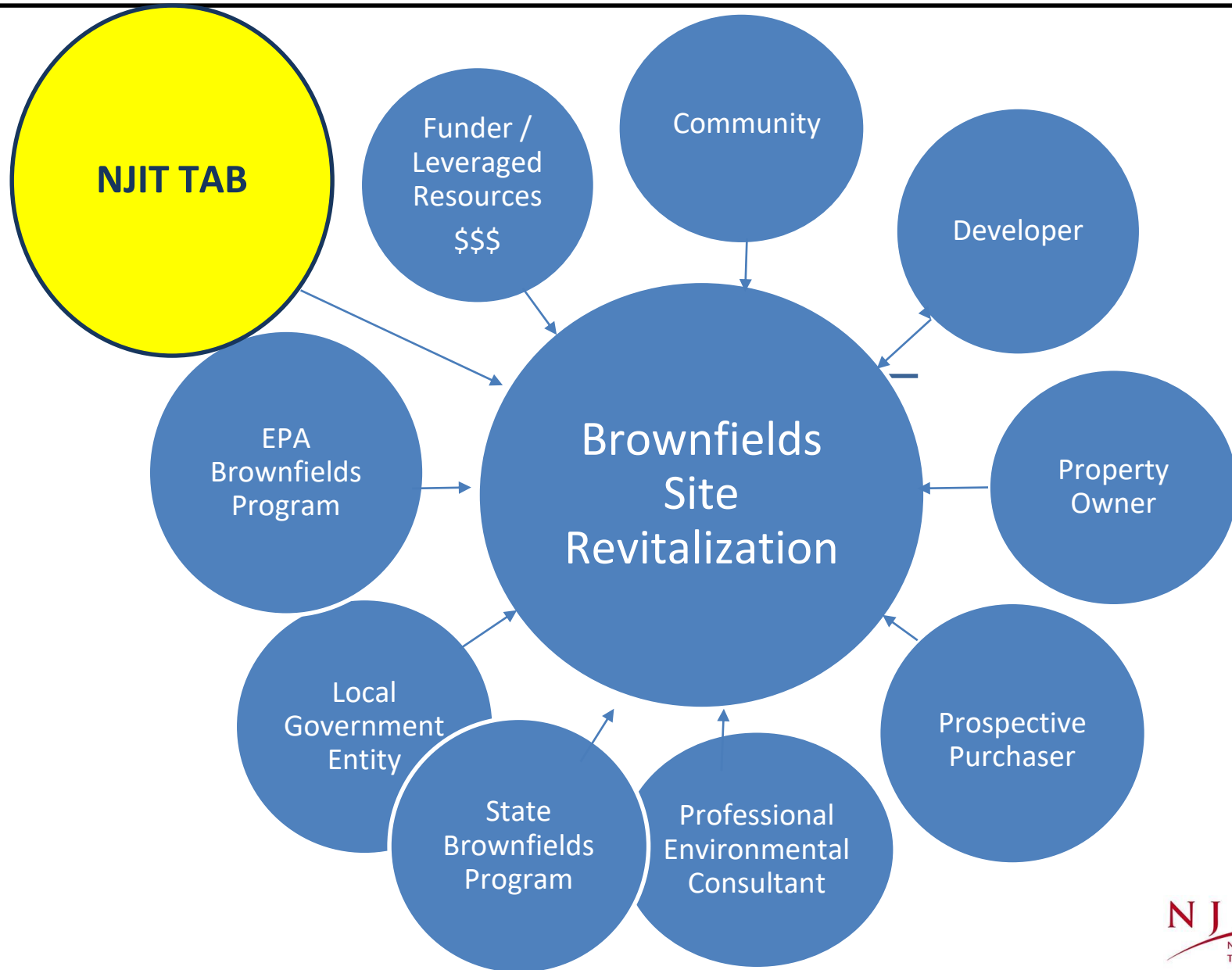


Build & Maintain Local Stakeholder and Citizen Support

- Public support is critical
 - Early and frequent involvement and engagement
 - Clearly communicate what completed project be and expected benefits
- Think beyond public hearings
 - Community charrettes & forums
 - Newsletters and the local media
 - Social media outreach
- Engage with private landowners & developers



Who Else is Typically Involved in Redeveloping a Brownfield Site?



HELP!!!

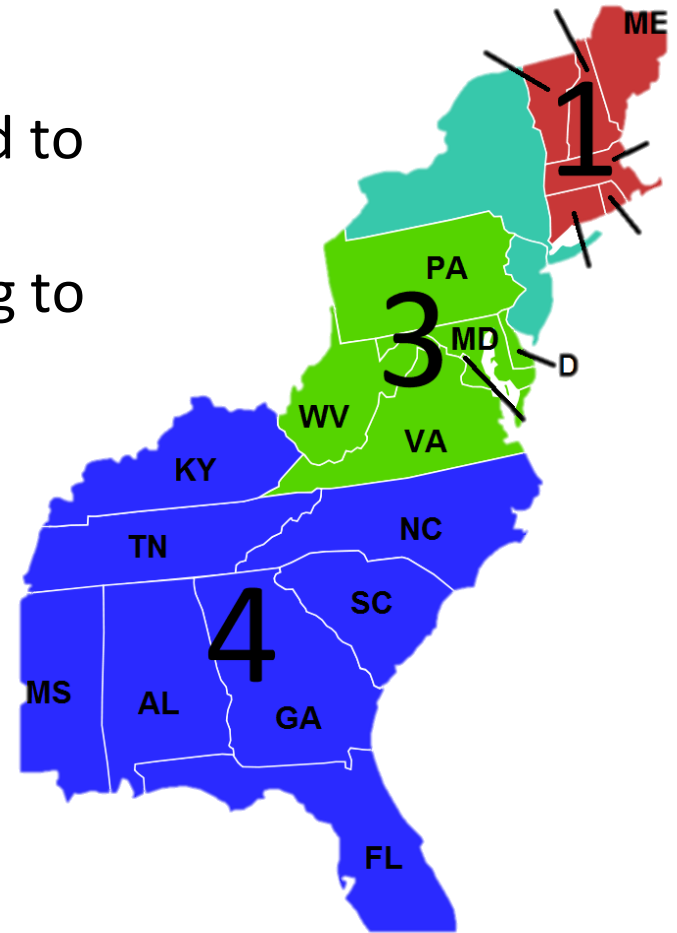


What is TAB?

Technical Assistance for Brownfields www.njit.edu/tab

TAB is a technical assistance program, funded by the USEPA, which is intended to serve as an independent resource to communities and nonprofits attempting to cleanup and reclaim brownfields.

➤ **Assistance is *free* of charge!**



NJIT TAB provides assistance throughout the *entire* brownfields redevelopment process.

Assistance is provided through...

- ❖ Resource Center
- ❖ Educational Forums
- ❖ One-on-one Technical Assistance



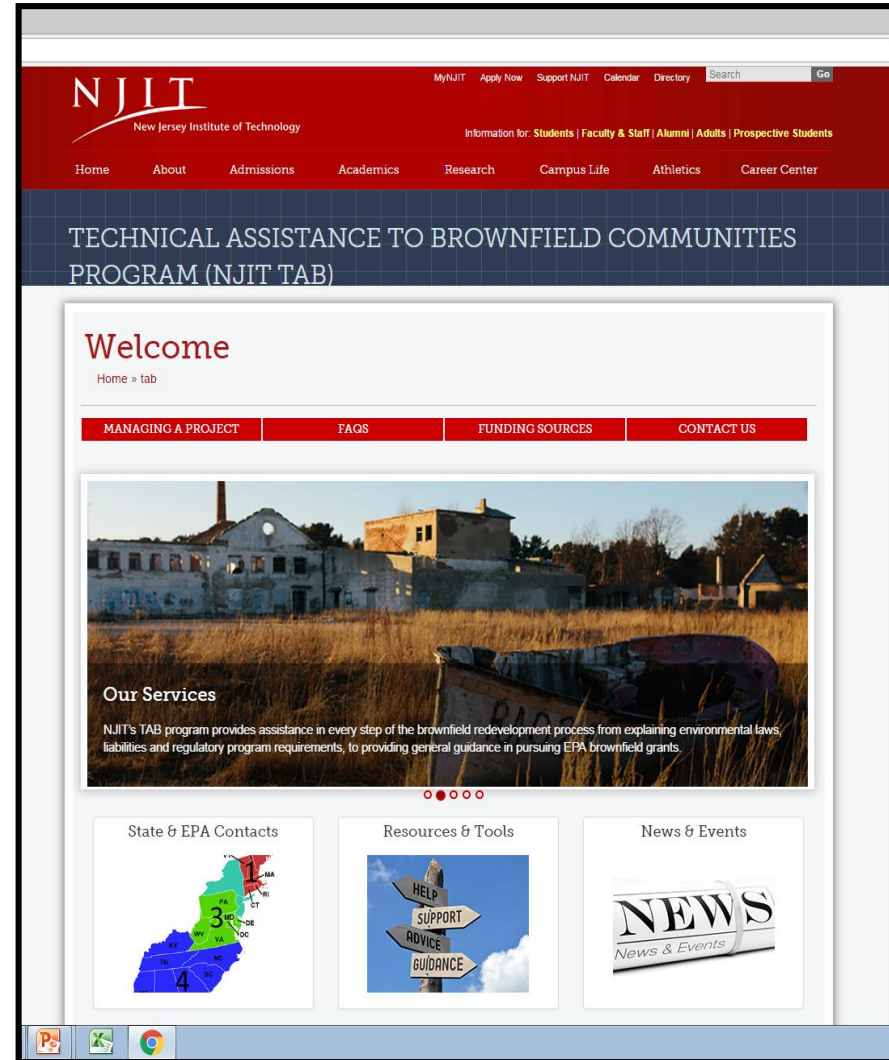
NJIT TAB Resource Center

www.njit.edu/tab

- ❖ info on all aspects of assessing and cleaning up a brownfield site
- ❖ news and upcoming events

Resources and Tools

- ❖ Federal and state funding sources
- ❖ state brownfield programs
- ❖ state and EPA contacts
- ❖ previously recorded webinars
- ❖ downloads of workshop and seminar presentations
- ❖ PCB brochures; GSI decision tree
- ❖ how-to videos



NJIT TAB Hotline

973-642-4165 tab@njit.edu



NJIT TAB Educational Forums

Conferences: pre-conference workshops, learning labs, panel sessions, office hours

Workshops: 2 to 4 hour interactive sessions on brownfield related topics

Seminars: deeper dive into specific brownfield related topics

Brownfield Boot Camps: more intensive, deep dive into specific brownfield related topics

Webinars: range from introducing the TAB program to specific brownfield topics

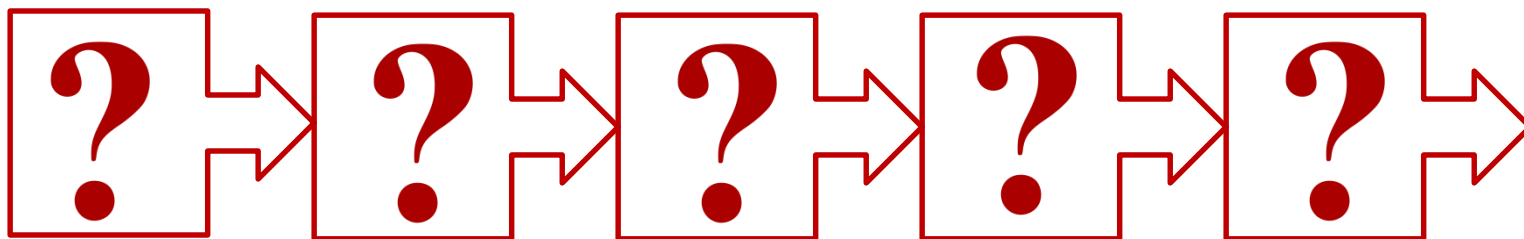
All-Grantee Meetings: work with state agencies and EPA



One-on-One Technical Assistance

Every community is different and every community's needs are different.

Brownfields Redevelopment Spectrum



The type and depth of assistance NJIT TAB provides is tailored to the needs of the community – from a quick call to more involvement.

Who is the NJIT TAB Team?



Sean Vroom, NJIT TAB Project Manager gives a tour of NYC's High Line to the City of Yonkers Area Wide Planning Grant Steering Committee.

Technical Assistance for Brownfields www.njit.edu/tab

Who Can Receive NJIT TAB Assistance

- ✓ Communities, tribes, governmental and quasi-governmental entities (state, regional, local) and nonprofits interested in brownfields



DELAWARE CONCERNED RESIDENTS
FOR ENVIRONMENTAL JUSTICE



Approach to Brownfield Redevelopment



**Site
Identification
/ Planning**

**Site
Investigation**

**Site
Funding**

**Site
Remediation /
Cleanup Planning**

**Site
Redevelopment**

Prioritizing
Brownfield Sites

Contractor
Procurement

Identification of
funding
opportunities

Evaluate
Proposed
Remedies

Integrated
Remediation and
Redevelopment

Visioning and
Community
Engagement

Review SOW for
Phase I/II
Assessments

EPA Brownfield
Grant Reviews

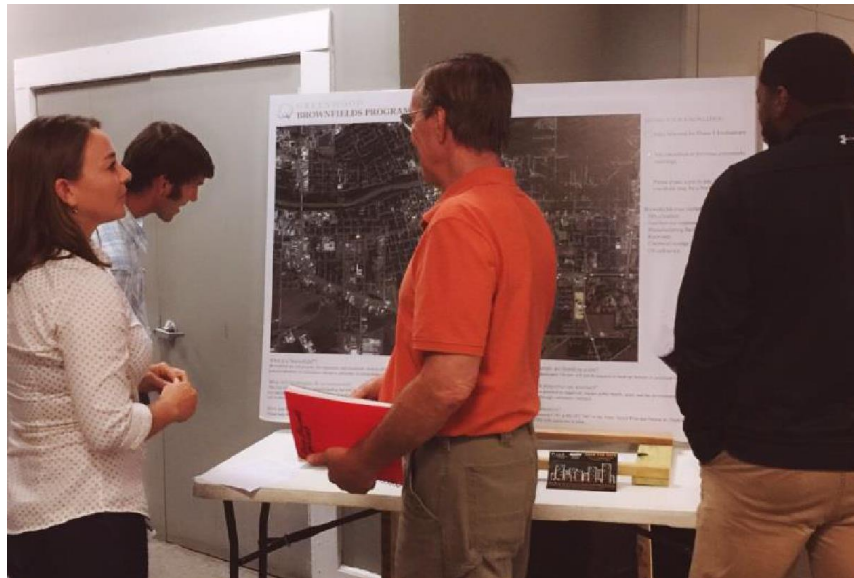
Explain Cleanup
Technologies

Attracting
Development

Brownfields 101



“This really helped me to understand brownfields and the resources that are available.”



Brownfields Grant Writing



Brownfields for Bankers



Delaware – Society for Responsible Agricultural Project (SRAP) and Vermont Yankee – NJIT TAB recommendations for site redevelopment options / constraints



Vermont Yankee Nuclear Power Plant in Vernon, Vt., UNITED STATES
NUCLEAR REGULATORY COMMISSION / CREATIVE COMMONS

- ❖ Reviewed Technical Documents
- ❖ Interviews

Chris Campany, Executive Director of the Windham Regional Commission

- ❖ Written Opinion Document

- ❖ Testimony

From my perspective this is exactly the type of information I was hoping for. This will hopefully go a long way towards helping folk understand the questions that need to be asked and which are being asked, and why. The absence of jargon is also much appreciated. It should be easily understood by anyone interested. Thank you!"

Environmental Justice League



<http://www.tidewatersite.com>

- Reviewed Technical Documents
- Written Opinion Document
- Explained Technical Concepts in Plain English
- Community Meeting

Area Wide Planning - Wilmington, DE



- ❖ Reviewed proposal
- ❖ Explained requirements for Work Plan
- ❖ Prepared a Checklist

How can NJIT TAB assist you?



Hotline: 973-642-4165

tab@njit.edu

www.njit.edu/tab

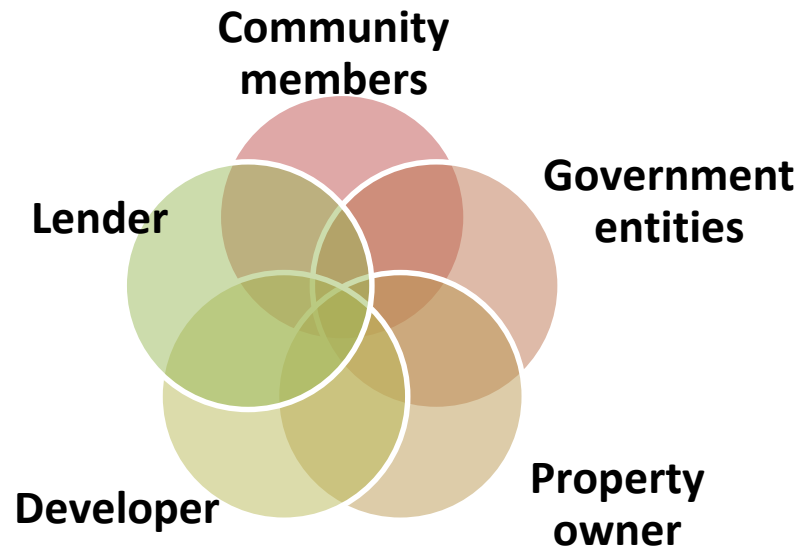


Follow Us [@NJITTAB](https://twitter.com/NJITTAB)

Informal Process for assistance – just call or email us – there is no contract to sign. All assistance is free to eligible entities.

What Makes a Brownfield Redevelopment Successful?

1. YOU!
2. Partnerships
3. Community Involvement / Champion
 - Remember: Whose Project is it? The Community's
4. Agreement among stakeholders



5. Evaluating and Mitigating Environmental Risks

- How “clean” does it need to be?

6. Is the Project Viable?

- Evaluate finances and funding sources.
 - Do the numbers work?
 - Can this area support the future use?



What Makes a Brownfield Success?

7. Financing / Funding

- Obtain the funds / financing



8. Timing



SAVE THE DATE
DECEMBER 11-13, 2019



Brownfields2019

SUSTAINABLE COMMUNITIES START HERE

*The largest training and networking event in the nation focusing on
environmental revitalization and economic redevelopment.*

LOS ANGELES, CA

Los Angeles Convention Center

DECEMBER 11-13, 2019

*with pre-conference programming
on December 10*

BROWNFIELDS2019.ORG

for more information



Conclusion

Learning More

- <http://www.njit.edu/tab/>
- <http://epa.gov/brownfields/>



THANK YOU

CONTACT INFORMATION:

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TAB Hotline: (973-642-4165); tab@njit.edu